

EXHIBIT 14



May 29, 1986

TO:

Hr. R. J. Landry

FROM:

S. D. Curran

SUBJECT: Exxon Underground Tank Leak Experience

This is in response to the subject data request as back up for Mr. Meyer's API - Committee on Public Issues meeting.

Following is recent data on EUSA Marketing tank leak experience derived from field investigation reports:

<u>Year</u>	Number of Exxon Owned Tanks	Number of Tank Leaks	1 Leaks
1982	28,500	730	2.6
1983	26,300	540	2.1
1984	24,300	235	ĩ.o
1985	22,000	239	1 1

Additional data was added to the leak classification matrix in 1986. Only those systems where both a tank system was tested not to be tight and an actual unauthorized discharge occured are listed as leaks. As a result, where previous data included tank tightness failures that did not result in a discharge (e.g. vent line vapor leaks), excavation or observation well investigation results are now listed when the suspected unauthorized discharge actually occurred. Data to date indicates a tank leak rate of 0.7% may be expected in 1986.

SDC:alj 8952c

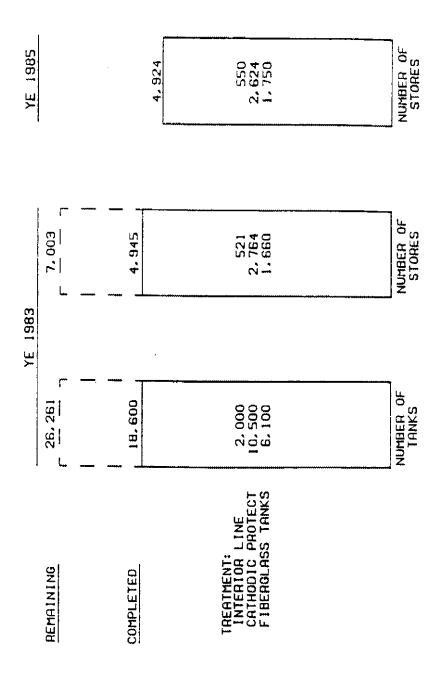
cc: A. L. Decker

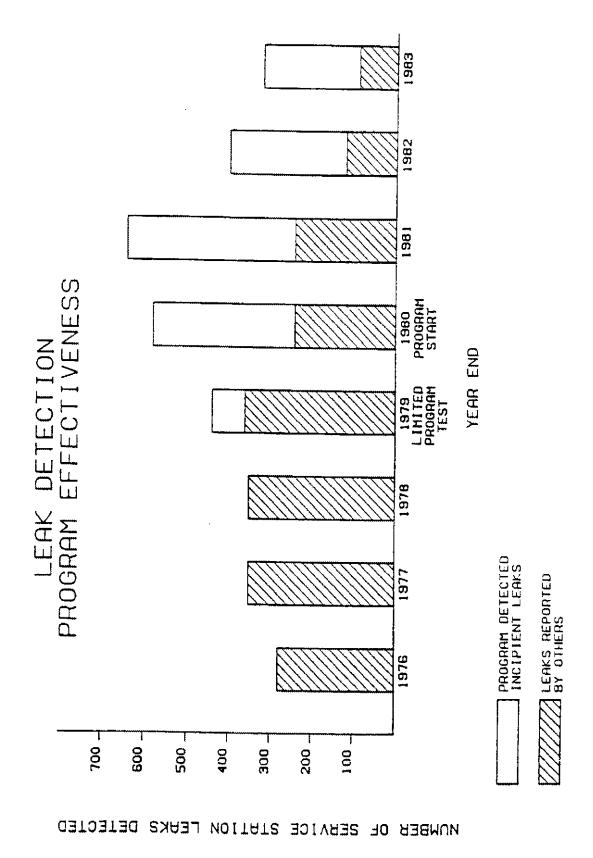
R. R. Eaton

H. E. Gattis

W. B. Matney
M. E. Rollins

UNDERGROUND TANK PROGRAM TANK UPGRADING STATUS





LCBE 42 0477

EUSA MARKETING Underground Storage Tank Systems Leak Experience

Number of Exxon-Owned Tanks			Percentage of Leaks		
<u>Year</u>	Two-Point Average	Tested for Leaks	Tank Leaks	To Total	To Tanks Tested
1982 1983 1984 1985	31,200 27,400 25,300 23,100	NA NA 891 948	730 540 235 240	2.3 2.0 0.9 1.0	NA NA 26 25

Exxon's leak detection program relies mainly on mandatory daily, weekly, and monthly operator inventory reconcilation for early leak detection. Tank testing is triggered whenever the variation exceeds one-half of one percent of the thruput per month. In addition, product inventory verification over a test period-usually one month--is required to be performed annually by the operator and company representative. Monitoring wells to detect leaks through drawoff of samples have been installed at most stations constructed over the last few years, and at some older facilities in high-risk locations. When unexplained inventory variations are reported or detected through these methods, Exxon does a hydrostatic tank tightness test that will detect leaks as small as .05 gallons per hour. Finally, leaks may be discovered in pipes that are under pressure by line leak detectors which continuously monitor line pressure.

In addition to tank testing because of suspected leaks, Exxon also tests tanks for other reasons; e.g., local ordinances, planned acquisitions, or as part of the surplussing program. In 1985, the leak rate for tanks tested for suspected leaks was 44% and for those tested for other reasons, 13%.

There is no standard definition of an underground storage tank system leak. Prior to 1986, Exxon classified as a leaker any tank that failed the tank tightness test. Beginning in 1986, tanks were classified as leakers only if a product leak—as opposed to an air or vapor line leak—was subsequently verified. Early 1986 data indicate a tank leak rate of 0.7%.

PJL:slw:kc 6/86

EXXON UNDERGROUND TANK TIGHTNESS TESTING EXPERIENCE 1985

	Num		
Reason for Tightness Test	Tested	Failed	% Failure
Suspected Leaks (e.g., inventory control vari- ations, line leak detectors, other)	376	164	44
Other Programs (e.g., surplussing, acquisi- tions, local regulations, other)	<u>572</u>	<u>76</u>	<u>13</u>
Total	948	240	25

Exxon Underground Tank Tightness Tests 1985

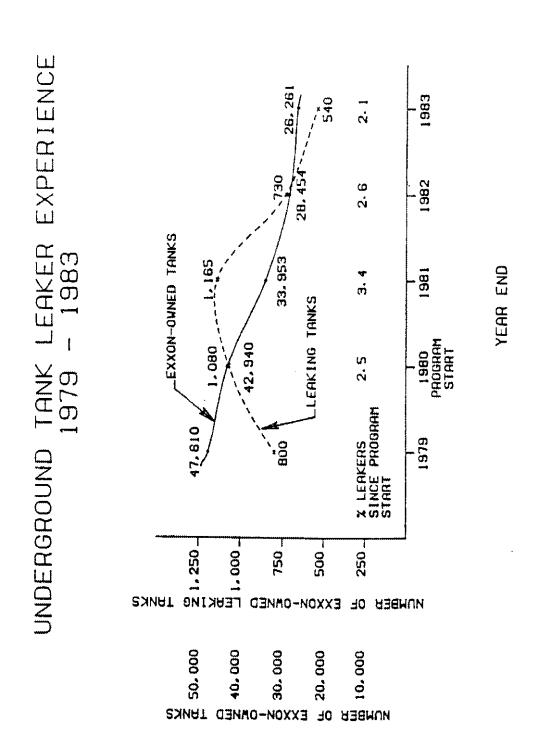
	Number		Danessa
Reason for Tightness Test	Tested	Failed	Percent Failed
Suspected Leaks (dealer complaint, in- reduventory reconciliation, etc.)		124	38.8
Annual Inventory Verification	·Šī _ 56	40	71.4
Planned Divestiture	269 31	48 (64 €	17.8
Planned Acquisitions	92	0	0.0
Tank Upgrading Program (for tanks slated for cathodic protection)	126	23	18.3
Requirement of Local Regulation	62	5	8,1
Other Reasons	23	0	0.0
Total	948	240	25.3

130 sales -

240

776

PJL:kc 6/4/86



EXXON UNDERGROUND TANK TIGHTNESS TESTING EXPERIENCE

1985

Reason for Tightness Test	Number Tested Failed		% Failure	
Suspected Leaks (e.g. inventory control variations, line leak detectors, other)	376	164	44	
Other Programs (e.g. surplussing, acquisitions, local regulations, other)	572	76	13	
Total	948	240	25	

EUSA MARKETING Underground Storage Tank Systems Leak Experience

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Number of Exxon-Owned Tanks			Percentage of Leaks		
Year		for Leaks	Tank Leaks	To Total To	Tanks Tested
1982 1983 1984 1985	25,953 31,200 28,500 27,400 25,300 24,300 24,300 23,100 22,000	NA NA 891 948	730 540 235 240	2.6 2.3 2.1 2.0 1.0 0.9 1.1 (.0	NA NA 26 . X 25 . X

Exxon's leak detection program relies mainly on mandatory daily, weekly, and monthly operator inventory reconcilation for early leak detection. Tank testing is triggered whenever the variation exceeds one-half of one percent of the thruput per month. In addition, product inventory verification over a test period--usually one month--is required to be performed annually by the operator and company representative. Monitoring wells to detect leaks through drawoff of samples have been installed at most stations constructed over the last few years, and at some older facilities in high-risk locations. When unexplained inventory variations are reported or detected through these methods, Exxon does a hydrostatic tank tightness test that will detect leaks as small as .05 gallons per hour. Finally, leaks may be discovered in pipes that are under pressure by line leak detectors which continuously monitor line pressure.

In addition to tank testing because of suspected leaks, Exxon also tests tanks for other reasons; e.g., local ordinances and planned acquisitions or an part of the suspected leaks processes was 44% and for those tested for other reasons, 13%.

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There is no standard definition of an underground storage tank system leak. Prior to 1986, Exxon classified as a leaker any tank that failed the tank tightness test. Beginning in 1986, tanks were classified as leakers only if in addition to failing the tightness test, a leak was subsequently verified that resulted in a significant discharge, and was not attributable to other factors such as the vent line or loose fittings. Data to date indicates a tank leak rate of 0.7% in 1985.

PJL:slw:kc

May 29, 1986

TO: Mr. R. J. Landry

FROM: S. D. Curran

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Following is recent data on EUSA Marketing tank leak experience derived from field investigation reports:

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Year	Number of Exxon Owned Tanks	Number of Tank Leaks	Z <u>Leaks</u>
19610	4 4 4 5 7	1,280	سرية <u></u>
1982	28, 500 -*454	730 1165	2.6 ^{-3,4}
1983	*Tk 26, 300 2.67	540	2.1
1984 1985	6,312 (4,16) . 24,300 326		1.0
1986	5,296 backy 22,000 034	239	1.1
1786	4,506 18,745	130	0.7

Additional data was added to the leak classification matrix in 1986. Only those systems where both a tank system was tested not to be tight and an actual unauthorized discharge occured are listed as leaks. As a result, where previous data included tank tightness failures that did not result in a discharge (e.g. vent line vapor leaks), excavation or observation well investigation results are now listed when the suspected unauthorized discharge actually occurred. Data to date indicates a tank leak rate of 0.7% may be expected in 1986.

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API RECOMMENDED PRACTICE FOR UNDERGROUND PETROLEUM PRODUCT STORAGE SYSTEMS AT MARKETING AND DISTRIBUTION FACILITIES

Foreword

The prevention and detection of product leakage from petroleum storage and dispensing systems is important to both industry and the public. This recommended practice is offered as a guide for voluntary use by architects, engineers, marketers, jobbers and contractors in the design, use and maintenance of such systems.

Federal, state and municipal codes or laws may have specific restrictions or requirements which must be taken into account prior to the installation of the underground tanks and piping.

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